CLAIMS

1.   A classification dictionary updating apparatus
comprising:

5   an update proposal receiving unit that receives a
proposal for updating a hierarchical classification
dictionary which has a hierarchical structure which
includes a class that defines the hierarchical structure, a
property that defines a hierarchical class structure, and
10   an attribute that is a detailed information field of the
class and the property, and in which a sub classification
class inherits a property of an upper classification class;
        a proposal history storing unit that stores the past
received proposal;
15   an approximate proposal extracting unit that extracts
the past received proposal stored by the proposal history
storing unit approximate to the latest received proposal;
and
        an approximate proposal presenting unit that presents
20   the extracted proposal.

2.   The classification dictionary updating apparatus
according to claim 1, wherein the proposal presented by the
approximate proposal presenting unit contains a content of
25   the proposal received by the update proposal receiving unit,
a result of evaluation indicating one of rejection and
acceptance of the proposal received by the update proposal
receiving unit, a content of a comment on the proposal
received by the update proposal receiving unit, and
30   information on a degree of approximation that is a result
of calculation of the degree of approximation.

3.   The classification dictionary updating apparatus

according to claim 1, wherein when the received proposal is a proposal for editing one of an existing class and an existing property, the approximate proposal extracting unit searches the proposal history storing unit for a proposal

5   with a highest degree of approximation based on one of an attribute of the proposal for editing and a content of the proposal for editing to extract a proposal approximate to the proposal for editing.

10   4.   The classification dictionary updating apparatus according to claim 1, wherein when the received proposal is a proposal for adding one of a new class and a new property, the approximate proposal extracting unit searches the proposal history storing unit for a proposal with a highest

15   value of accumulated degree of approximation based on respective attributes of the proposal for adding, to extract a proposal approximate to the proposal for adding.

5.   The classification dictionary updating apparatus

20   according to claim 1, wherein when the received proposal is a proposal for adding a new class, the approximate proposal extracting unit searches the proposal history storing unit for a proposal with a highest degree of similarity to a collection of properties of the proposal

25   for adding, to extract a proposal approximate to the proposal for adding.

6.   The classification dictionary updating apparatus according to claim 1, further comprising an addition target

30   searching unit that is configured to, when the received proposal is a proposal for adding one of a new class and a new property, advise of an addition target where the proposal for adding is to be added, according to a location

of the proposal extracted by the approximate proposal extracting unit.

7. The classification dictionary updating apparatus according to claim 6, wherein when the received proposal is a proposal for adding a new class, the addition target searching unit advises of the addition target according to a hierarchical structure of the proposal found as a result of search based on a part or a whole of properties of the proposal for adding.

8. The classification dictionary updating apparatus according to claim 6, wherein when the received proposal is a proposal for adding a new class, the addition target searching unit advises of the addition target according to a result of comparison between a property of the proposal found as a result of search based on a content of an attribute of the proposal for adding, and a property of the proposal for adding.

9. The classification dictionary updating apparatus according to claim 6, wherein when the received proposal is a proposal for adding a new property, the addition target searching unit advises that a class that defines the proposal approximate to the received proposal is presented as the addition target.

10. The classification dictionary updating apparatus according to claim 1, further comprising a proposal advice presenting unit that is configured to advise of a result of evaluation indicating rejection of the received proposal, when the proposal extracted by the approximate proposal extracting unit is identical with the received proposal.

11.   The classification dictionary updating apparatus according to claim 1, further comprising a proposal advice presenting unit that is configured to advise of a result of evaluation of the proposal extracted by the approximate proposal extracting unit as a result of evaluation of the received proposal.

12.   The classification dictionary updating apparatus according to claim 10, further comprising an evaluating and commenting unit that makes a dictionary manager evaluate and give comment on the received proposal according to the result of evaluation given as advice.

13.   The classification dictionary updating apparatus according to claim 11, further comprising an evaluating and commenting unit that makes a dictionary manager evaluate and give comment on the received proposal according to the result of evaluation given as advice.

14.   The classification dictionary updating apparatus according to claim 1, further comprising:
      a history statistics analyzing unit that generates statistics and analyzes a history of the proposals stored in the proposal history storing unit; and
      a reuse proposal presenting unit that extracts a proposal to reuse from the proposal history storing unit according to the statistics and the analysis of the history, notifies a proposer of the reuse, and presents the proposal to reuse.

15.   The classification dictionary updating apparatus according to claim 14, further comprising a degree-of-

attention presenting unit that presents a class, a property, and an attribute with a high degree of attention based on the statistics and the analysis of the history.

5   16.   The classification dictionary updating apparatus according to claim 1, further comprising:

a proposal draft receiving unit that receives a proposal approximate to a proposal draft;

a simulative approximate proposal extracting unit that

10   makes the proposal extracting unit search for the proposal received by the proposal draft receiving unit; and

a simulative approximate proposal presenting unit that presents the proposal extracted by the simulative approximate proposal extracting unit.

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17.   A computer program product having a computer readable medium including computer-executable programmed instructions for updating a classification dictionary, wherein the instructions, when executed by a computer,

20   cause the computer to perform:

receiving a proposal for updating a hierarchical classification dictionary which has a hierarchical structure which includes a class that defines the hierarchical structure, a property that defines a

25   hierarchical class structure, and an attribute that is a detailed information field of the class and the property, and in which a sub classification class inherits a property of an upper classification class;

storing the received proposal;

30   extracting a proposal approximate to the received proposal from the proposals already stored; and

presenting the extracted proposal.

18. A method of updating a classification dictionary, comprising:

receiving a proposal for updating a hierarchical classification dictionary which has a hierarchical structure which includes a class that defines the hierarchical structure, a property that defines a hierarchical class structure, and an attribute that is a detailed information field of the class and the property, and in which a sub classification class inherits a property of an upper classification class;

storing the received proposal;

extracting a proposal approximate to the received proposal from the proposals already stored; and

presenting the extracted proposal.